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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/821,288	04/09/2004	Pedro Angel Fernandez	200-66700 (PB040050AF)	1114

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EXAMINER

FORD, JOHN K

ART UNIT	PAPER NUMBER
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3744

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/04/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/821,288	Applicant(s) FERNANDEZ ET AL.	
	Examiner John K. Ford	Art Unit 3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 1/16/07
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-30 and 32-36 is/are pending in the application.
- 4a) Of the above claim(s) 23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-22, 24-30 and 32-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claims 1-15 have been canceled. Claims 16-22 and 24-36 have been previously identified as being readable on the elected species. Claim 23 is withdrawn as being directed to a non-elected species. Claim 31 has been canceled. Accordingly, claims 16-22, 24-30 and 32-36 are examined here.

Applicant's response of January 16, 2007 has been carefully considered. While applicant has made a few amendments to the claim 16, they appear to be purely cosmetic in nature. Counsel argues that he doesn't understand the rejection of claims 17, 18 and 25 under 35 USC 112, second paragraph, but then goes on to fix the problem as if counsel did understand the rejection. Since counsel has fixed the problem with these claims, the issue is moot and no further discussion is deemed unnecessary. The "vertically spaced apart" or "above" limitations to the extent that they imply some orientation with respect to the earth's surface are not given weight in assessing the patentability of the apparatus being claimed. In other words, Jiyosefu, which is not already oriented with "vertically spaced apart" apertures with respect to the earth's surface (in contrast to DE 19709145 or WO 02/32202 or Woods (US 2003/0085025) or JA 59-56695, which all show "vertically spaced apart" apertures) does not undergo a metamorphosis into a new piece of apparatus merely by rotating it 90 degrees with respect to the earth's surface. Infringement with respect to an apparatus claim does not depend on the orientation of the shipping box.

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Applicant's traverse~~s~~ of the substantive rejections under 35 USC 103 have been considered and they are unconvincing. Applicant misstates the examiner motivational statement by only partly quoting the examiner's reasoning. This is not a convincing line of argument because it ignores the substantive reasoning set forth in the rejection. The portion of the motivation that applicant did not reproduce and failed to consider was stated to be for the purpose to "advantageously sealingly engage the externally located heat exchanger to the cabinet to advantageously prevent water and unconditioned air from leaking into the respective cabinets of DE '145 or JP '698 or WO '202 or Woods or JP '695." Moreover, the Federal Circuit has made it abundantly clear that motivation can come from what one of ordinary skill understands to be fairly suggested by the prior art. And the presence of all of those securing means 19 in Holthouse fairly teach an improved seal. In fact in column 4, lines 10-21 states that the seal is air-tight and is made so by the gaskets and the securing means 19. One of ordinary skill in the art would know that these cabinets have to be sealed well from the weather of the electronics inside will be damaged, notwithstanding counsel's attempts to suggest otherwise. Such arguments are completely beneath the skill level in this art.

Regarding the argument that the teachings of Kormos and Holthouse cannot be combined is not understood. Holthouse shows a flange having a total of eleven bolts 19 securing the heat exchanger housing to the wall of the enclosed space around an aperture 23. To have modified Kormos with a flange on the heat exchanger to receive the heads of eleven bolts around each of the packings 18a and 18b (which correspond

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in function to gasket 97 of Holthouse) would have been easily within the skill level of one of ordinary skill in the art, notwithstanding counsel's remarks to the contrary.

Putting a few more bolts in is clearly not rocket science.

The same argument doesn't hold water with respect to Jiyosefu. All one has to do is drill a total of eleven holes around each of the apertures 28 and 30 (and the corresponding apertures in the housing 20) of Jiyosefu and insert a corresponding number of bolts through them and fasten them with nuts as clearly shown in Holthouse. The examiner is having difficulty imagining how something so basic as bolting two things together is confounding counsel. Putting a few more bolts in is clearly not rocket science.

The examiner is not going to waste precious examining time explaining to counsel with respect to each of Vidacovich, Woods and Mikurika, how to drill eleven holes around each of the apertures in those references, positioning a gasket and inserting bolts and placing nuts on the bolts and tightening them down to form an air tight and water tight seal, because this is so routine and mundane that it is difficult to imagine how counsel could possibly argue that such routine "shop work" is beyond the level of one of ordinary skill in this art.

Regarding the argument, with respect to claim 26 that simple screens would have been unobvious to have placed to keep debris out of the holes when the unit was

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serviced is unconvincing. Yes, they could impede air flow if the mesh was too small, but again, one of ordinary skill in the art would know how to size the holes to minimize pressure drop while still permitting undesirable debris from getting to the electronics inside the box.

The rejections based on prior art from the previous office action are repeated below and the examiner's comments above are incorporated by reference into each of these rejections:

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 16, 17, 18, 19, 20, 21, 22, 24, 25, 27, 28, 29, 30 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combined teachings of any one of DE 19709145 or JP '698 or WO 02/32202 or Woods (US 2003/0085025) or JA 59-56695 and Holthouse (USP 2,372,897).

DE '145 (Figures 1,2 and 8-10) shows a heat exchanger/fan assembly mounted entirely on the outside of an electronics cabinet. "Fastening means" 43 are shown in Figure 1 (and in more detail in Figure 7) and appear to accept a bolt that passes

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through the element 43 and through plate 4 (see Figure 7) on either side of the upper and lower openings 34a and 34b (again, see Figure 7).

JP '698 teaches apertures 24 (probably bolt holes) around air passages 28 and 30 in the cabinet 22 shown in Figure 10 (to mount an external heat exchanger on an electronics cabinet).

WO '202 teaches in Figure 5 plenums 21 and 23 that are sealed to the outside of panel 22 of the electronics enclosure 10.

Woods shows, particularly in Figure 4 a vertical wall with at least two apertures upon the outside of the wall a heat exchanger is mounted.

JP 59-56695 shows a heat exchanger mounted on the outside of a cabinet wall. No connection means are illustrated around openings 10 and 11.

Finally, Holthouse Figures 1 and 2 shows a piece of air conditioning/ heat exchanging equipment mounted externally of an enclosed space and teaches a gasket 97 and a plurality of bolts 19 all the way around the periphery of the opening (23) in the wall between the enclosed space and the conditioning equipment. As shown in Figure 3, this opening 23 has eleven bolts 19 located around it. Notably three of these bolts happen to be located "directly" between that opening (23) and the other opening (22) to

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the left of it. Like, the system disclosed in DE '145 or JP '698 or WO '202 or Woods or JP '695, the air from inside the enclosed space is withdrawn from the enclosed space, temperature conditioned and returned to the enclosed space.

To have provide a plurality of bolt holes (at least two and preferably three or more on each side of the rectangular aperture) and a sealing gasket around each of the upper and lower rectangular openings shown in DE '145 in Figure 1 or around each of rectangular openings 28 and 30 in the top of casing 22 in JP '698 or around each of the rectangular openings communicating plenums 21 and 23 to corresponding rectangular apertures in panel 22 of WO '202 or around each of the rectangular openings communicating plenums 401 and 402 in Figure 4 of Woods or around each of the openings 10 and 11 in JP '695, to, in each case, advantageously sealingly engage the externally located heat exchanger to the cabinet to advantageously prevent water and unconditioned air from leaking into the respective cabinets of DE '145 or JP '698 or WO '202 or Woods or JP '695 would have been obvious to one of ordinary skill in the art in view of the teaching of Holthouse. More bolts would obviously permit one to obtain a tighter seal and a more reinforced construction.

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as applied to claim 18 above, and further in view of Reinhard.

To have reversed the airflows in any of the prior art references in favor of the ones shown by Reinhard in Figure 5 would have been obvious to one of ordinary skill in the art since they accomplish the same overall result and to improve cooling at the top of the cabinet assuming that some high dissipation component was located there.

Claims 24, 25, 26, 27, 28, 29, 30, 32, 33, 34 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as applied to claim 16 above, and further in view of Koltuniak.

To have added one or both of screens 64 and 70 as shown in Koltuniak to the inlet and outlet apertures in the cabinet of any of the prior art references to advantageously prevent dust and debris from entering the cabinet when the heat exchanger is removed for servicing would have been obvious from the teaching of Koltuniak. Because screens take up a finite area the combined cross-section of the screened passage is always less than the cross-section of the corresponding unscreened passageway having the same perimeter.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

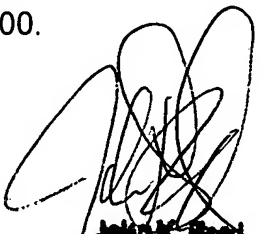
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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John K. Ford whose telephone number is 571-272-4911. The examiner can normally be reached on Mon.-Fri. 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on 571-272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



John K. Ford
Primary Examiner